

25



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,696	10/20/2003	Toru Nakao	Q77951	2831

7590 01/10/2005  
SUGHRUE MION, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3213

EXAMINER

MERCEDES, DISMERY E

ART UNIT PAPER NUMBER

2651

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/687,696	<b>Applicant(s)</b> NAKAO, TORU	
	<b>Examiner</b> Dismery E Mercedes	<b>Art Unit</b> 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/20/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on October 20, 2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 9, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Admitted Prior Art, hereinafter, AAPA (KK (JP 2001-266321)).

As to Claim 1, AAPA discloses a servo signal inspecting apparatus to inspect a recorded state of a servo signal with a reproducing head with a smaller width than a width of a servo track (¶0013, lines 4-5), the apparatus comprising: a magnetic tape driving unit running a magnetic tape (¶0013, lines 3-4); a reproducing head inspecting a servo signal recorded on said magnetic tape (¶0024, line 4); and a head controlling unit controlling said reproducing head so as to vibrate in a range of width of said servo track in a width direction of said magnetic tape (¶0024, lines 9-10).

As to Claim 5, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

Art Unit: 2651

As to Claim 9, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (¶0027-0029).

As to method claim 13, is drawn to the method of using the corresponding apparatus claimed in claim 1, and is therefore rejected for the same reasons set forth in claim 1, supra.

As to method claim 14, is drawn to the method of using the corresponding apparatus claimed in claim 5, and is therefore rejected for the same reasons set forth in claim 5, supra.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 6,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Albrecht et al. (5,689,384).

As to Claim 2, AAPA discloses a reproducing head is made to vibrate in a range of width of said servo track by said head controlling unit (¶0024, lines 9-10).

AAPA fails to particularly disclose a plurality of said reproducing heads are provided at a predetermined interval for one said servo track.

However, Albrecht et al. discloses such on (as depicted in Figures.2 & 3, col.5 lines 52-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Albrecht's technique on AAPA's apparatus, the motivation being because it would

Art Unit: 2651

provide AAPA's apparatus with the enhanced capability of providing position signals that indicate the relative position of the head within the track (col.5, lines 16-21).

As to Claim 6, in the obvious combination, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

As to Claim 10, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (§0027-0029).

As to method claim 15, is drawn to the method of using the corresponding apparatus claimed in claim 10, and is therefore rejected for the same reasons set forth in claim 10, supra.

6. Claims 3,7,11 are rejected as being unpatentable over AAPA in view of Richard et al. (US 4,426,047).

As to Claim 3, AAPA discloses the servo signal apparatus as claimed in base claim 1, but fails to particularly disclose a head guide assembly guiding a magnetic tape in a floated state off a guide surface by blowing air from said guide surface with which a surface of said magnetic tape is guided.

However, Richard et al. discloses such on (col.4, lines 56-64). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement Richard's guide bearings in AAPA's apparatus, the motivation being because it would provide AAPA's apparatus with the enhanced capability of reading and writing magnetic transitions to and from the magnetic tape (col.4, lines 63-64 of Richard et al.).

Art Unit: 2651

As to Claim 7, in the obvious combination, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

As to Claim 11, in the obvious combination, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (§0027-0029).

7. Claims 4,8,12 are rejected as being unpatentable over AAPA in view of Albrecht et al. (5,689,384), further in view of Richard et al. (US 4,426,047).

As to Claim 4, the combination of AAPA and Albrecht et al. discloses the servo signal apparatus as claimed in claim 2, but fails to particularly disclose a head guide assembly guiding a magnetic tape in a floated state off a guide surface by blowing air from said guide surface with which a surface of said magnetic tape is guided.

However, Richard et al. discloses such on (col.4, lines 56-64). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement Richard's guide bearings in the apparatus disclosed by AAPA's and Albrecht's, the motivation being because it would provide such apparatus with the enhanced capability of reading and writing magnetic transitions to and from the magnetic tape (col.4, lines 63-64 of Richard et al.).

As to Claim 8, in the obvious combination, AAPA further discloses an analysis unit analyzing whether or not defects exist in servo signals based on signals read with a reproducing head (abstract (solution, lines 5-8)).

Art Unit: 2651

As to Claim 12, in the obvious combination, AAPA further discloses an analysis unit memorizes data obtained from normally recorded servo signals as standard data in advance and compares the standard data with data in inspection, thereby finding defects of servo signals (§0027-0029).

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Toru et al. (JP 200-242915) discloses a servo signal verifying device
- Iwamatsu et al. (US 5,262,908) discloses a tracking control device for magnetic recording/reproducing apparatus
- Beck et al. (2004/0109257 A1) discloses a media with pre-recorded alignment transitions
- Molstad et al. (US 6,542,325 B1) discloses a time-based servo for magnetic storage media

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E Mercedes whose telephone number is 703-306-4082. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/687,696

Page 7

Art Unit: 2651

Dismery E Mercedes

Examiner

Art Unit 2651

DM

l.m. 12/27/04



**SINH TRAN**  
**SUPERVISORY PATENT EXAMINER**